The present invention concerns the phospho-dependent binding of FHA domains to phosphopeptides. This binding activity had never been reported prior to the present application and represents the contribution made by the invention over the prior art.

Group I relates to screening methods for compounds which modulate the phospho-dependent binding of FHA domains to phosphopeptides. Screening methods are known *per se* so the contribution to the art made by these methods is the phospho-dependent binding of FHA domains to phosphopeptides and this represents the special technical feature of Group I.

Group II relates to polypeptides obtained by the method of Group I or useful in the method of Group I. Since polypeptides are known *per se*, the contribution to the art of these methods is the activity of the polypeptides in taking part in the phospho-dependent binding of an FHA domain to a phosphopeptide. The polypeptides of Group II must therefore share a corresponding special technical feature with Group I

Group III relates to nucleic acids which encode the polypeptides of Group II and vectors and host cells comprising this nucleic acid. Group II relating to polypeptides and Group III relating to encoding nucleic acids share a corresponding special technical feature in accordance with MPEP Appendix AI Administrative Instructions on the PCT Annex B Part 2 Example 17.

Group IV relates to animals which comprise the host cells of Group III. The contribution to the art made by these animals is the presence of a nucleic acid of Group III. The claims of Group IV must therefore share a corresponding special technical feature with Groups II and III.

Group V relates to methods of producing the phosphopeptides of Group II. The contribution to the art of these methods is the phosphopeptides of Group II. The claims of Group V must therefore share a corresponding special technical feature with Group II.

Group VI relates to antibodies which modulate the binding of an FHA domain to a phosphopeptide. Since antibodies *per se* are known, the contribution to the art of these methods is the activity of the antibodies in modulating the binding of an FHA domain to a phosphopeptide. The antibodies of Group VI must therefore share a corresponding special technical feature with Group I.

Group VII relates to methods of purifying FHA domains or phosphoproteins by contacting with phosphoproteins or FHA domains, respectively. Since the purification of proteins by contact with other proteins is known *per se*, the contribution to the art of these methods is the binding of an FHA domain to a phosphopeptide. The methods of Group VII must therefore share a corresponding special technical feature with the other Groups.

Group VIII relates to methods of designing mimetics which take part in the phospho-dependent binding of an FHA domain to a phosphopeptide. Since methods of designing mimetics are known *per se*, the contribution to the art of these methods is the activity of the mimetic in the phospho-dependent

binding of an FHA domain to a phosphopeptide. The methods of Group VIII must therefore share a corresponding special technical feature with the other Groups.

The technical relationship linking all the claims presently on file is thus the provision of a phospho-dependent binding of an FHA domain to a phosphopeptide. The product and method inventions are so inextricably intertwined and essentially inseparable that a search relevant to the patentability of product claims must embrace both product and method prior art. Similarly, a search directed to the patentability of method claims must embrace both product and method prior art. The novel and nonobvious aspects of the products and methods of the present invention are interrelated and directed to a common technology i.e. phospho-dependent binding of an FHA domain to a phosphopeptide. In order to search claim groups I, the Examiner would be carrying out the same search as for the claims of groups II to VIII. Thus no "serious burden" would be placed on the Examiner. We therefore request that the claims groups of II-VIII are examined along with the claims of group I.

In summary, the present claims all recite the same or a corresponding special technical feature and relate to the same single inventive concept according to Rule 13 PCT. The requirements for unity of invention under Rule 13 PCT are therefore met and reconsideration of the restriction requirement set out in the recent Office Action is requested.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number MEWE-014.

Respectfully submitted,
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